

Work Order ID 68568 - 1

Monday, April 18, 2011 9:06:26 AM

Page 1

Item ID: D4149-041

Revision ID:

Item Name: Crosstube Lug Assembly. Aft

Start Date: 4/18/2011 Start Qty: 4.00

Required Date: 4/21/2011 Req'd Qty: 4.00

Reference:

Approvals: Process Plan:

QC:

Date: 4-04-18

Date:

Tooling:

SPC (Y/N):

Date:

Date:

Run Start

Stop

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D4149

C

100

0.00



Small Fab

Memo

0.00

Small Fab

I- Assemble as per dwg

110

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

120

Identify as per dwg & Stock Location: 768

0.00



Packaging

Memo

0.00

Packaging

Accept



Setup Start



Stop



Cust Item ID:

Customer:

Run Start



Stop



9/5/11/11/11

(X)

11/5/11

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 68568

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Page 2

Item ID: D4149-041

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Start Date: 4/18/2011 Start Qty: 4.00

Required Date: 4/21/2011 Req'd Qty: 4.00

Reference:

Approvals: Process Plan:

Date:

Tooling:

Date:

Run Start

QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
---------	--------	--------------	---------------	---------------	------------------	----------------

130

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

Accept



Setup Start



Stop



Cust Item ID:

Customer:



11/5/11 DJ
MF 11-05-11

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Monday, April 18, 2011 9:06:35 AM

Work Order ID: 68568

Parent Item: D4149-041

Parent Item Name: Crosstube Lug Assembly. Aft



Start Date: 4/18/2011

Start Qty: 4.00

Required Date: 4/21/2011

Required Qty: 4.00

Comments: IPP Rev:A 10.06.24 new issue DD verf:EC
IPP Rev:B 10.07.22 as per revB DD verf:JLM
11.03.03 as per revC DD verf:JLM

IPP Rev:C

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

MS21043-3



Nut

Purchased

No

100

Each

948.0000

4

8



EP 11/05/11

Location

Loc Qty

Loc Code

FG

80

103691

80

FP-B

-5

112314

-5

ST301

873

112314

873

8

MS21043-4



Nut

Purchased

No

100

Each

1,181.000

1

12



EP 11/05/11

Location

Loc Qty

Loc Code

FG

40

104603

40

ST300

600

117423

600

ST301

541

114523

3

116188

238

116549

300

12

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Picklist Print

Monday, April 18, 2011 9:06:35 AM

Page 2

Work Order ID: 68568

Parent Item: D4149-041

Parent Item Name: Crosstube Lug Assembly, Aft

Start Date: 4/18/2011

Required Date: 4/21/2011

Start Qty: 4.00

Required Qty: 4.00

D3910-1 Manufactured No

100 Each

1.0000

1

4



Crosstube Lug

Location

Loc Qty

Loc Code

st507

1

65631

1

D4091-1 Manufactured No

100 Each

6.0000

1

4



Mounting Lug

Location

Loc Qty

Loc Code

ST460

6

65626

6

D4149-1 Manufactured No

100 Each

5.0000

2

8



Crosstube Lug Plate, Aft

Location

Loc Qty

Loc Code

ST133

5

66896

5

D4149-3 Manufactured No

100 Each

1.0000

1

4



Spacer

Location

Loc Qty

Loc Code

ST133

1

61010

1

D4149-5 Manufactured No

100 Each

2.0000

1

4



Eyebolt Stud

Location

Loc Qty

Loc Code

ST133

2

66897

2

gfs 4/18/11
68263 (4x)

gfs 4/18/11
B68868 (4x)

gfs 4/18/11
B68869 (3x)

gfs 4/18/11
~~B68267~~

gfs 4/18/11
B68870 (3x)
B68267

Monday, April 18, 2011 9:06:35 AM

Shop Packet Print

Page 2

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Picklist Print

Monday, April 18, 2011 9:06:36 AM

Page 3

Work Order ID: 68568

Parent Item: D4149-041

Parent Item Name: Crosstube Lug Assembly, Aft



Start Date: 4/18/2011

Required Date: 4/21/2011

Start Qty: 4.00

Required Qty: 4.00

AN3C12A
BOLTS
Purchased

No

100 Each

57.0000

2

8



EP 11/05/11

Location

Loc Qty

Loc Code

ST351

57

116924

7

117313

50

AN4C13A
BOLT
Purchased

No

100 Each

44.0000

3

12



EP 11/05/11

Location

Loc Qty

Loc Code

ST353

44

117366

44

MS20615-4M18
Rivet
Purchased

No

100 Each

370.0000

3

12



EP 11/05/11

Location

Loc Qty

Loc Code

ST323

370

117411

370

NAS1149C0332R
Washer
Purchased

No

100 Each

4.723.000

4

16



EP 11/05/11

Location

Loc Qty

Loc Code

ST297

4723

116304

55

117291

4668

Monday, April 18, 2011 9:06:36 AM

Shop Packet Print

Page 3

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Monday, April 18, 2011 9:06:36 AM

Page 4

Work Order ID: 68568

Parent Item: D4149-041

Parent Item Name: Crosstube Lug Assembly, Aft



Start Date: 4/18/2011

Required Date: 4/21/2011

Start Qty: 4.00

Required Qty: 4.00

NAS1149C0432R

Purchased

No

100

Each

6,512.000

6

24



Washer



Handwritten signature and date: 4/11/05/11.

Location

Loc Qty

Loc Code

ST297

6512

116900

1512

117291

5000

Monday, April 18, 2011 9:06:36 AM

Shop Packet Print

Page 4

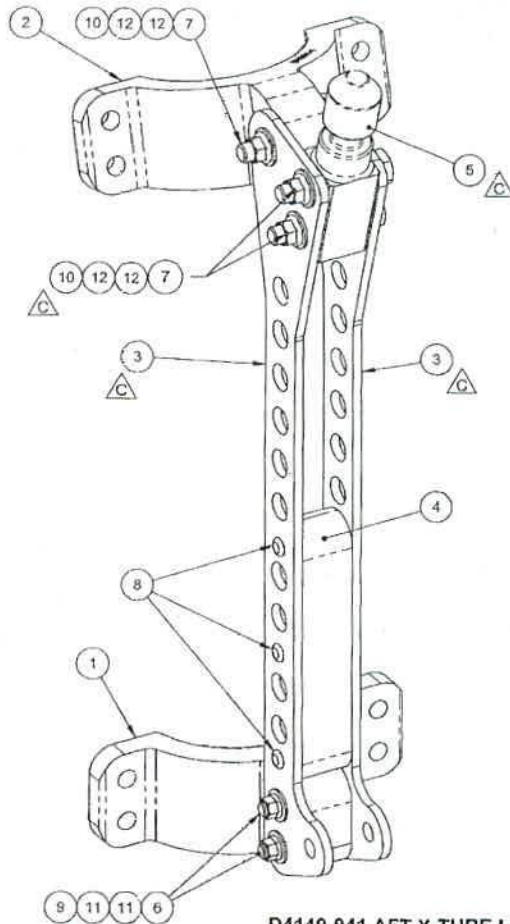
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DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D4149-041 AFT X-TUBE LUG ASSY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4149-041" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 2.21 lbs

STATION
RETURN
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 68548
2/11-04-18

ITEM	QTY -041	P/N	DESCRIPTION
	X	D4149-041	AFT X-TUBE LUG ASSY
1	1	D3910-1	X-TUBE LUG
2	1	D4091-1	MOUNTING LUG
3	2	D4149-1	AFT X-TUBE LUG PLATE
4	1	D4149-3	SPACER
5	1	D4149-5	EYEBOLT STUD
6	2	AN3C12A	BOLT
7	3	AN4C13A	BOLT
8	3	MS20615-4M18	RIVET
9	2	MS21043C3	NUT
10	3	MS21043C4	NUT
11	4	NAS1149C0332R	WASHER
12	6	NAS1149C0432R	WASHER

C	HOLE DIA CHANGED TO 0.252" (D8-3); HOLE DIA CHANGED TO 0.250" (C8-5); REPLACED QTY(2) AN3C12A, MS21043C3 AND QTY(4) NAS1149C0332R WITH QTY(2) AN4C13A, MS21043C4 AND QTY(4) NAS1149C0432R (D3-1, D7-2)	SC	11.02.22
B	MS20615-4M18 WAS MS20615-4M20 (ZN D3-1 & B7-2); ADDED D4149-5 (SHT 5); D4149-5 WAS D3909-5 (ZN D3-1 & D7-2); REPLACED QTY(3) MS20615-4M18 WITH QTY(2) EACH AN3C12A, MS21043-3 AND QTY(4) NAS1149C0332R WASHER (ZN D3-1, C7-1, B7-2 & B9-2); Ø0.191 2 PL REPLACES Ø0.129 3 PL (ZN D8-3); REASON: SEE TR-D350-807-2 REV. B.	MB	10.07.05
A	NEW ISSUE	MB	10.06.18
REV.	DESCRIPTION	BY	DATE
DESIGN	MB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D4149 REV. C SHEET 1 OF 5 TITLE AFT X-TUBE LUG ASSY SCALE NTS COPYRIGHT © 2010 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS UNCLASSIFIED AND IS NOT TO BE USED FOR ANY PURPOSE OR REPRODUCED IN ANY MANNER WITHOUT WRITTEN PERMISSION OF DART AEROSPACE LTD.</small>	
DRAWN	SC		
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	11.02.22		

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

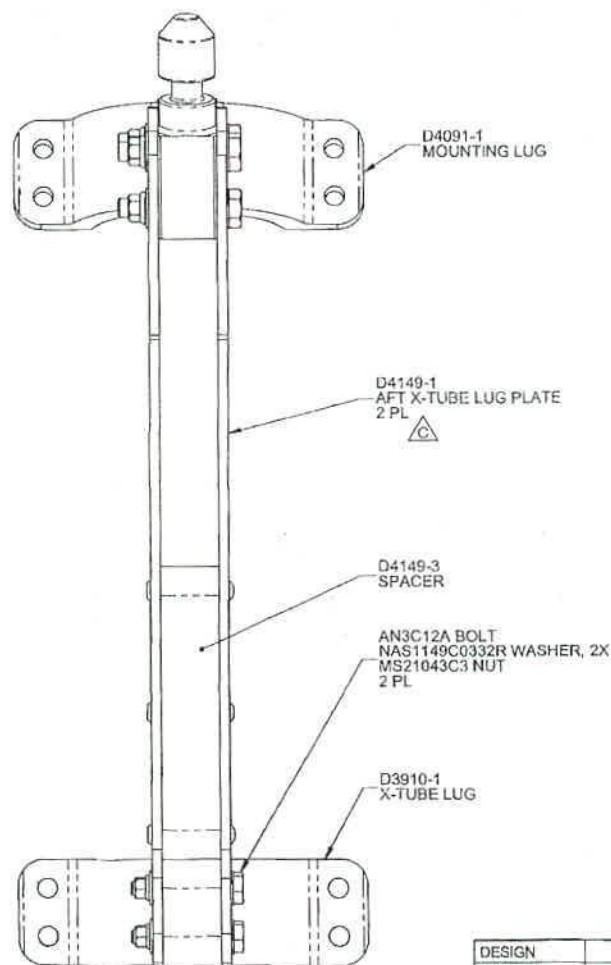
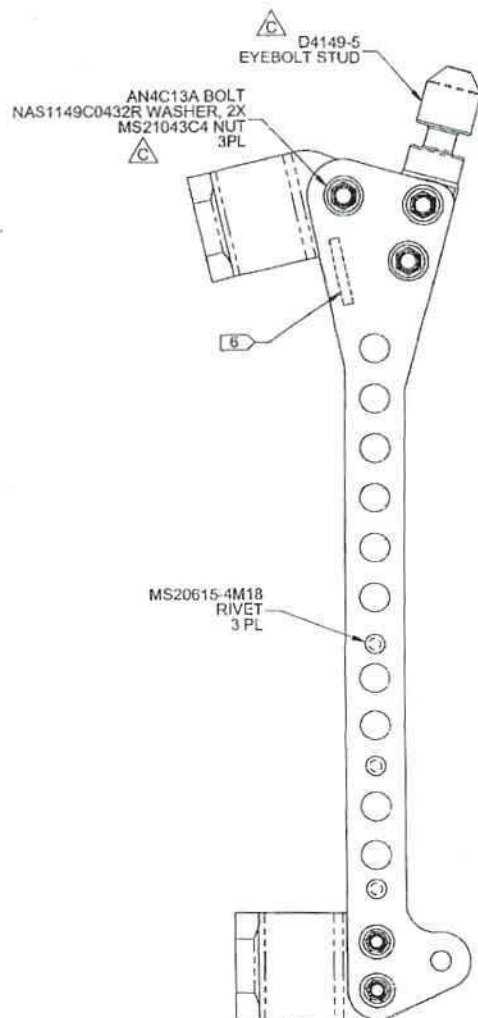
Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

8 7 6 5 4 3 2 1



D4149-041 AFT X-TUBE LUG ASSY

W068568

RELEASED
2011-02-24
MP

DESIGN	MB	DART AEROSPACE LTD	
DRAWN	SC	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D4149	SHEET 2 OF 5
APPROVED		TITLE	SCALE
DE APPR.		AFT X-TUBE LUG ASSY	NTS
DATE	11.02.22	<small>COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR DISCLOSED OR REPRODUCED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD</small>	

8 7 6 5 4 3 2 1

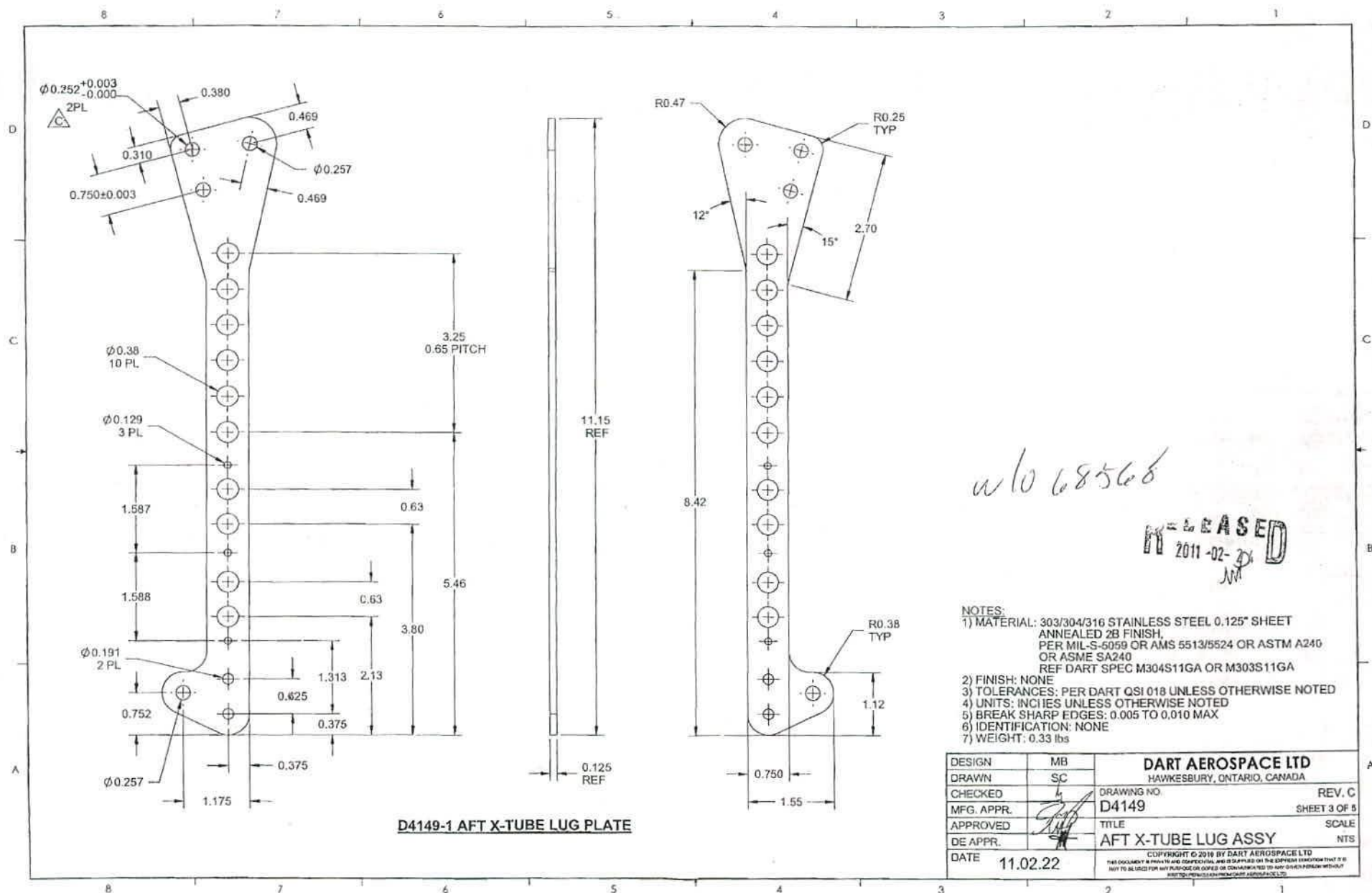
W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



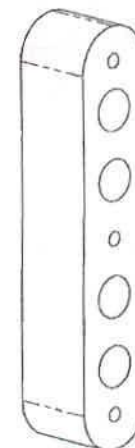
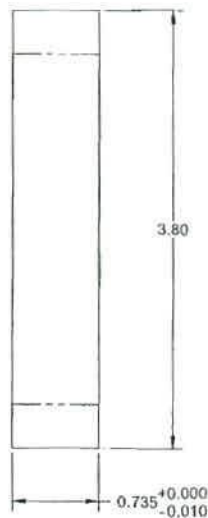
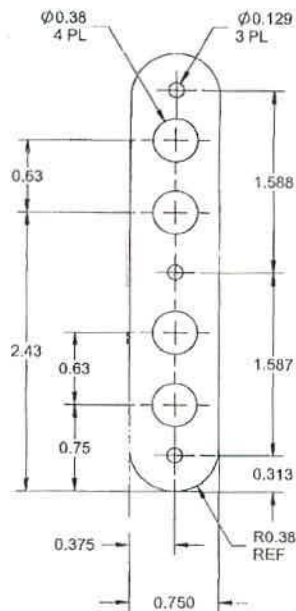
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DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D4149-3 SPACER

w/o 68568

RELEASED
2011-02-24
MP

- NOTES:**
 1) MATERIAL: 303/304/316 STAINLESS STEEL BAR PER ASTM A276 OR A582
 REF DART SPEC MS304B OR MS303B
 2) FINISH: NONE
 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 5) BREAK ALL SHARP EDGES: 0.005 TO 0.010 MAX
 6) IDENTIFICATION: NONE
 7) WEIGHT: 0.47 lbs

DESIGN	MB	DART AEROSPACE LTD	
DRAWN	SC	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. C
MFG. APPR.	<i>[Signature]</i>	D4149	SHEET 4 OF 5
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	AFT X-TUBE LUG ASSY	NTS
DATE	11.02.22	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRINTED AND REPRODUCED AND IS SUPPLIED BY THE SUPPLIER CONDITIONED THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COMMERCE WITHOUT THE WRITTEN PERMISSION FROM DART AEROSPACE LTD	

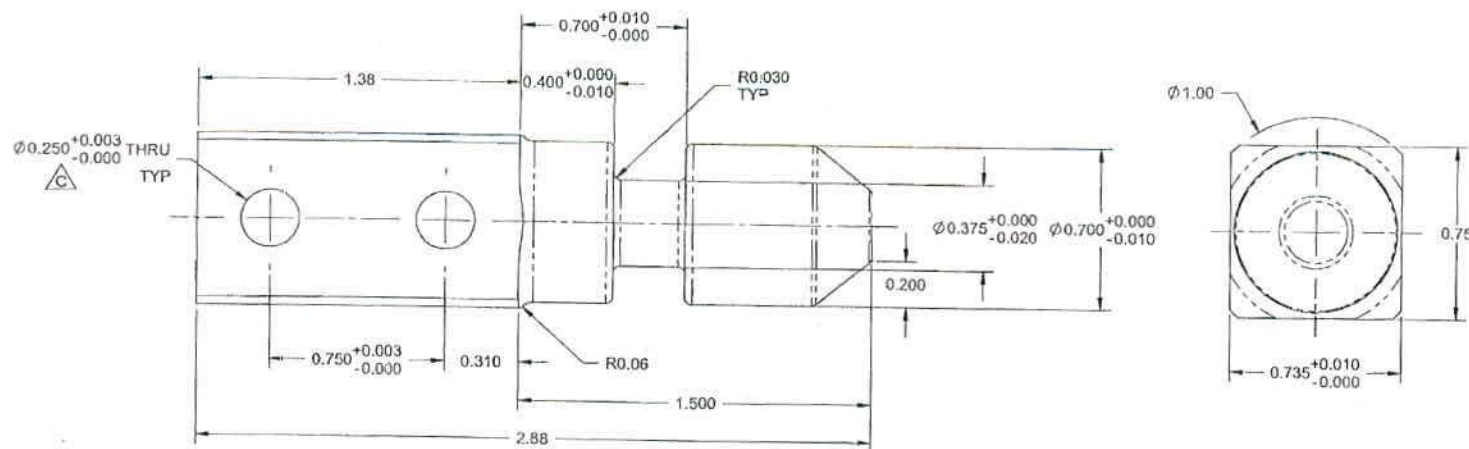
W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D4149-5 EYEBOLT STUD

u/068568

RELEASED
2011-02-26

NOTES:

- 1) MATERIAL: 303/304/316 STAINLESS STEEL BAR PER ASTM A276 OR A582
REF DART SPEC MS304B OR MS303B
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK ALL SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4149-5" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 0.32 lbs

DESIGN	MB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
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CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D4149	SHEET 5 OF 5
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W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE		By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action			Verification Section C	Approval Chief Eng	Approval QC Inspector
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